Pacific Gas and Electric Company

Les Guliasi
Director
State Agency Relations

Mail Code B29L
Pacific Gas and Electric Company
P.O. Box 77000
San Francisco, CA 94177-0001

415.973.6463
Fax: 973.9572

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ELECTRONIC DELIVERY

California Energy Commission
Docket Office, MS-4
1516 Ninth Street
Sacramento, CA 95814-5512

Re: Docket No. 06-IEP-1M (2007 - Scenario Analyses)

Docket Office:

Please find attached PG&E's comments on the workshop held June 18th and July 9th, regarding "2007 – Scenario Analyses".

Please contact me should you have any questions. I can be reached at 415/973-6463.

Sincerely,

Les Guliasi /gg

Les Guliasi

Attachment

Pacific Gas & Electric Company
Comments on the CEC Staff Draft Report:
Scenario Analysis of California's Electricity System:
Preliminary Results for the 2007 Integrated Energy Policy Report

Docket No. 06-IEP-1M
July 20, 2007

Pacific Gas and Electric Company (PG&E) appreciates the opportunity to provide comments on the California Energy Commission (CEC) Staff Draft Report: *Scenario Analysis of California's Electricity System: Preliminary Results for the 2007 Integrated Energy Policy Report* (Staff Draft Report), and the *Addendum to Scenario Analysis of California's Electricity System: Preliminary Results for the 2007 IEPR* (Addendum), discussed at the June 18th and July 9th Scenario Assessment IEPR workshops.

PG&E's comments aim to: (1) discuss the methodology of the CEC's analysis, and (2) clarify PG&E data used in the Staff Draft Report.

Methodology used in the Staff Draft Report

The Staff Draft Report presents an assessment of the costs and benefits of high penetration of customer energy efficiency (CEE) and renewable resources. PG&E believes the analysis should consider the impacts of the proposed policy on four key areas: reliability, cost, environmental impacts, and rate stability. The Staff Draft Report is very informative in showing the impacts of high levels of penetration of renewable resources and energy efficiency in two of these areas, namely cost and environmental impact. The Staff Draft Report also provides the cost stability and reliability impacts for certain scenarios. PG&E has the following suggestions related to the methodology and results to further increase the usefulness of the study:

- A Broad Range of Resources Should be Considered
  The report analyzes the impacts of high levels of energy efficiency and renewables, and is useful and informative for motivating policy discussions related to these resources. However, to facilitate a comprehensive discussion of policies, such as Assembly Bill (AB) 32 mandate to reduce greenhouse gas (GHG) emissions, there is a need to look at a broader range of resources in addition to energy efficiency and renewable resources.

  The Staff Draft Report, for example, shows that the cost of reducing carbon dioxide (CO_2) emissions through renewable projects is in the range of $300/ton to $500/ton. Other means to reduce CO_2 emissions, such as allowance purchases and offset projects, may be more cost attractive and should be explored.

- Reliability

PG&E suggests that the analysis should clearly state the levels of resource adequacy the intermittent renewable resources are expected to provide. Although the Staff Draft Report ascertains that all nine cases maintain the same level of reliability, it would be helpful to policy discussions to clearly show the quantitative reliability matrices.

- Operational feasibility/Integration Costs
  The Staff Draft Report appears to assume that all the additional preferred resources and intermittent renewables are operationally feasible. In addition to focusing on maintaining the reserve margin, PG&E suggests that the costs and physical facilities associated with renewable resources integration be fully accounted for to ensure that the electric system is truly operable. Investigation of critical operational issues, such the incremental need for generation unit flexibility (minimum turndown, start and stop, ramp rate), system flexibility (load following, scheduling), and transmission facility requirements must be considered.

  The scenarios would be incomplete unless supplemented with the consideration of resource lead-times, transmission and integration costs. PG&E recommends the CEC continue its work with the California Independent System Operator (ISO), the California Public Utilities Commission (CPUC), and the utilities on understanding and assessing operation issues.

- Renewables Portfolio Standard (RPS) and CEE Resource Uncertainties
  Uncertainties associated with the availability and cost of energy efficiency and renewable resources also need to be incorporated into the analysis.

- Contribution to AB32 GHG Emissions Reduction
  The Addendum states that no scenario achieves the 1990 standard that AB32 is attempting to achieve [p. 3]. This statement is based on a comparison between the CEC's estimate of in-state electric utility emissions in 1990 and in future years under the various scenarios presented in the Staff Draft Report. PG&E believes that it is too early to reach this conclusion before the details of AB32 implementation are known. Also, PG&E believes that the proper comparison should include the State's responsibility for the emissions associated with all resources, including electricity imports needed to serve the state's electricity needs, rather than in-state generation emissions alone.

Clarification of PG&E data used in the Staff Draft Report

In Staff Draft Report Case 1B (Existing Requirements Scenario), the CEC used data from an older version of PG&E's 2006 Long Term Procurement Plan (LTPP) that was amended and superseded on March 5, 2007. One of the objectives of the amendment was to set a path to invest in CEE sufficient to meet the current energy efficiency quantity targets adopted by the CPUC in D.04-09-060. Under the amended LTPP, the amount of

CEE for PG&E's Recommended Plan is substantially higher than in the older version of the LTPP.